


DEPARTMENT OF TRANSPORTATION

STATE OF GEORGIA

INTERDEPARTMENT CORRESPONDENCE

FILE Pavement Design **OFFICE** Materials and Testing
Forest Park, Georgia
DATE January 19, 2018

FROM 
Monica L. Flournoy, P.E., State Materials Engineer

TO Meg Pirkle, P.E., Chief Engineer

SUBJECT Criteria for Use of Asphaltic Concrete Layer and Mix Types

The Office of Materials and Testing (OMAT) recommends that the "Guidelines for Superpave Mix and Other Mix Types Selection – Revision" dated March 18, 2011 be revised. This revision to the guidelines corresponds with current construction practice and specifications.

These guidelines supersede the current guidelines dated March 18, 2011. All changes and recommendations have been incorporated into the attached two-page "Criteria for Use of Asphaltic Concrete Layer and Mix Types" dated January 19, 2018, which is effective immediately.

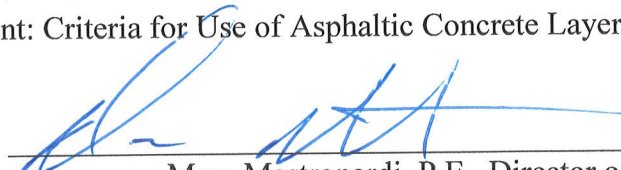
Maintenance projects shall use the separate guidelines "Criteria for Use of Asphaltic Concrete Layer and Mix Types for Maintenance Projects."

If you have any questions, please contact Peter Wu at (404) 608-4840 or J.T. Rabun at (404) 608-4740.

MLF:PW:JTR:IR

Attachment: Criteria for Use of Asphaltic Concrete Layer and Mix Types

Concurs:


Marc Mastronardi, P.E., Director of Construction

Recommends:


Hiral Patel, P.E., Director of Engineering

Approves:


Meg Pirkle, P.E., Chief Engineer

CRITERIA FOR USE OF ASPHALTIC CONCRETE LAYER AND MIX TYPES

(Use Design Year Two-Way ADT and ADTT)

	PAY ITEM	Two-Way Average Daily Traffic (ADT)	Maximum Two-Way Average Daily Truck Traffic (ADTT)	MIX TYPE	LAYER THICKNESS AND/OR SPREAD RATE Customary, (Metric)			REMARKS
					(Minimum)	USE	(Maximum)	
Drainage	400-3206	>25,000	N/A	12.5 mm OGFC	85 lbs/yd ² , (46 kg/m ²)	100 lbs/yd ² , (54 kg/m ²)	110 lbs/yd ² , (60 kg/m ²)	For Interstate Routes. For High ADT State Routes with speed limits ≥ 55 mph only when recommended by the Office of Materials and Testing (OMAT).
Surface**	402-3102	0 to 4,000	1,000	9.5 mm Type II Superpave	1-1/8", 125 lbs/yd ² , (29 mm, 68 kg/m ²)	1-1/4", 135 lbs/yd ² , (32 mm, 73 kg/m ²)	1-1/2", 165 lbs/yd ² , (38 mm, 90 kg/m ²)	For State and Off-system Routes .
	402-3103	4,000 to 10,000	1,000					
	402-3130	10,000 to 25,000	2,500	12.5 mm Superpave	1-3/8", 150 lbs/yd ² , (35 mm, 81 kg/m ²)	1-1/2", 165 lbs/yd ² , (38 mm, 90 kg/m ²)	2-1/2", 275 lbs/yd ² , (64 mm, 149 kg/m ²)	For State Routes and for shoulders of Interstate Routes.
	402-4510	25,000 to 50,000	N/A	12.5 mm Superpave w/ Polymer Modified AC	1-3/8", 150 lbs/yd ² , (35 mm, 81 kg/m ²)	1-1/2", 165 lbs/yd ² , (38 mm, 90 kg/m ²)	2-1/2", 275 lbs/yd ² , (64 mm, 149 kg/m ²)	For high ADT State Routes, Interstate Routes when recommended by OMAT, all flexible pavement Interstate Ramps, and all flexible pavement roundabouts.
	402-3600	>50,000	N/A	12.5 mm SMA	1-3/8", 150 lbs/yd ² , (35 mm, 81 kg/m ²)	1-1/2", 165 lbs/yd ² , (38 mm, 90 kg/m ²)	3", 330 lbs/yd ² , (75 mm, 180 kg/m ²)	For Interstate Routes and for State Routes when recommended by OMAT. OMAT may recommend 2-inch lift 12.5 mm SMA on Interstates.
Intermediate	402-3190	N/A	N/A	19 mm Superpave	1-3/4", 190 lbs/yd ² , (44 mm, 103 kg/m ²)	2", 220 lbs/yd ² , (50 mm, 120 kg/m ²)	3", 330 lbs/yd ² , (75 mm, 180 kg/m ²)	All routes. 2 inches is optimum for smoothness. If additional structure of greater than 3" is required, use 25 mm Superpave. Trench widening Thickness = 6", 660 lbs/yd ² , (150 mm, 360 kg/m ²)
Base	402-3121	N/A	N/A	25 mm Superpave	3", 330 lbs/yd ² , (75 mm, 180 kg/m ²)	3", 330 lbs/yd ² , (75 mm, 180 kg/m ²)	5", 550 lbs/yd ² , (125 mm, 300 kg/m ²)	All routes. 3 or 4 inches is a standard lift thickness. Trench widening Thickness = 6", 660 lbs/yd ² , (150 mm, 360 kg/m ²)

Note: Mix type to be used for patching and leveling will depend on thickness to be placed according to Section 400.3.03.B.4, Table 3 in Shelf Special Provision.

**Use of the shown pay items for Surface mixes will comply with GDOT Policy 5520-8 in relation to the allowed aggregate Group/Blend for friction and ADT.

CRITERIA FOR USE OF ASPHALTIC CONCRETE LAYER AND MIX TYPES

(Use Design Year Two-Way ADT and ADTT)

Mixes Used on an Infrequent Basis (Contact OMAT for Guidance before using)

	PAY ITEM	Two-Way ADT	Maximum Two-Way ADTT	MIX TYPE	LAYER THICKNESS AND/OR SPREAD RATE			REMARKS
					Customary, (Metric)			
					(Minimum)	USE	(Maximum)	
Drainage	400-3150	N/A	N/A	9.5 mm OGFC	55 lbs/yd ² , (30 kg/m ²)	60 lbs/yd ² , (33 kg/m ²)	65 lbs/yd ² , (35 kg/m ²)	Limited use on State Routes to address specific drainage problems and for High ADT State Routes with speed limits ≥ 55 mph only when recommended by OMAT.
	400-3624	N/A	N/A	12.5 mm PEM	110 lbs/yd ² , (60 kg/m ²)	135 lbs/yd ² , (73 kg/m ²)	165 lbs/yd ² , (90 kg/m ²)	For Interstate Routes only when recommended by OMAT.
Surface**	402-3100	<800	N/A	9.5 mm Type I Superpave	7/8", 90 lbs/yd ² , (22 mm, 49 kg/m ²)	1-1/4"*, 135 lbs/yd ² , (32 mm, 73 kg/m ²)	1-1/4", 135 lbs/yd ² , (32 mm, 73 kg/m ²)	For use on Off-System Routes. *For Off-system Routes <u>only</u> USE: 1-1/8", 125 lbs/yd ² , (29 mm, 68 kg/m ²) For use in parking lot construction. For use on State Routes only when recommended by OMAT.
	402-3101	800 to 2,000	N/A					
	402-4506	N/A	N/A	9.5 mm Type II Superpave w/ Polymer Modified AC	7/8", 90 lbs/yd ² , (22 mm, 49 kg/m ²)	1-1/4", 135 lbs/yd ² , (32 mm, 73 kg/m ²)	1-1/2", 165 lbs/yd ² , (38 mm, 90 kg/m ²)	Only when recommended by OMAT.
	402-3575	10,000 to 50,000	N/A	9.5 mm SMA	1-1/8", 125 lbs/yd ² , (29 mm, 68 kg/m ²)	1-1/4", 135 lbs/yd ² , (32 mm, 73 kg/m ²)	1-1/2", 165 lbs/yd ² , (38 mm, 90 kg/m ²)	May be used as alternate surface on State Routes only when recommended by OMAT.
	402-4610	N/A	N/A	12.5 mm Superpave w/ Highly Polymer Modified AC	1-3/8", 150 lbs/yd ² , (35 mm, 81 kg/m ²)	1-1/2", 165 lbs/yd ² , (38 mm, 90 kg/m ²)	2-1/2", 275 lbs/yd ² , (64 mm, 149 kg/m ²)	May be used as alternate surface only when recommended by OMAT.
Intermediate	402-4514	N/A	N/A	19 mm Superpave w/ Polymer Modified AC	1-3/4", 190 lbs/yd ² , (44 mm, 103 kg/m ²)	2", 220 lbs/yd ² , (50 mm, 120 kg/m ²)	3", 330 lbs/yd ² , (75 mm, 180 kg/m ²)	Only when recommended by OMAT.
	402-3606	N/A	N/A	19 mm SMA	1-3/4", 190 lbs/yd ² , (44 mm, 103 kg/m ²)	2", 220 lbs/yd ² , (50 mm, 120 kg/m ²)	3", 330 lbs/yd ² , (75 mm, 180 kg/m ²)	Only for special circumstances, with concurrence of OMAT.

Note: Mix type to be used for patching and leveling will depend on thickness to be placed according to Section 400.3.03.B.4, Table 3 in Shelf Special Provision.

**Use of the shown pay items for Surface mixes will comply with GDOT Policy 5520-8 in relation to the allowed aggregate Group/Blend for friction and ADT.